

What is claimed is:

- 1           1. A topical cosmetic composition, said composition  
2 comprising:
  - 3           (a) 0.5% to 40% of a hybrid silicone composite powder  
4 having a spherical shape with particle diameter ranging from 2 to  
5 10  $\mu\text{m}$ ;
  - 6           (b) 0.1% to 95% of a volatile cosmetic fluid;
  - 7           (c) 0.5% to 90% of a silicone fluid with viscosity  
8 ranging from 2 to 350 cSt;
  - 9           (d) 0.1 to 80% of an oil base consisting of an oil,  
10 wax, oil gelling agent or the mixture thereof;
  - 11           (e) 0.05 to 15% of a surface active agent;
  - 12           (f) 0.05 to 40% of a cosmetic pigment; and
  - 13           (g) optionally, an aqueous gel containing glycerin,  
14 glycol and an aqueous thickening agent.

- 1           2. The composition of claim 1, wherein the hybrid  
2 silicone composite powder having a spherical shape with particle  
3 diameter ranging from 2 to 10  $\mu\text{m}$  comprises polydimethylsiloxane  
4 (PMS) and polymethylsilsesquioxane (PMSQ) networks.

- 1           3. The composition of claim 2, wherein the PMS and  
2 PMSQ networks form a composite structure of interpenetrating  
3 polymer networks, which are held together by physical

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4 entanglements on a molecular scale without chemical bonding  
5 between them.

1 4. The composition of claim 3, wherein the PMS and  
2 PMSQ networks are sequentially synthesized using two different  
3 reaction mechanisms.

1 5. The composition of claim 4, wherein the PMS and  
2 PMSQ networks have a weight ratio of PMS:PMSQ ranging from 1:1 to  
3 50:1.

1 6. The composition of claim 4, wherein the PMS network  
2 is prepared by curing a liquid rubber emulsion containing alkenyl  
3 silicone, hydrogen silicone and optionally methylalkoxysilane  
4 using a platinum catalyst.

1 7. The composition of claim 6, wherein the liquid  
2 rubber emulsion is an o/w emulsion.

1 8. The composition of claim 6, wherein the alkenyl  
2 silicone is an organopolysiloxane having two or more alkenyl  
3 groups per molecule.

1 9. The composition of claim 6, wherein the hydrogen  
2 silicone is an organohydrogen polysiloxane having two or more  
3 Si-H groups per molecule.

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1           10. The composition of claim 6, wherein  
2 methylalkoxysilane is selected from methyltrimethoxysilane and  
3 methyltriethoxysilane.

1           11. The composition of claim 4, wherein PMSQ network  
2 is synthesized through hydrolyzing and condensing  
3 methyltrialkoxysilane impregnated in PMS network with aqueous  
4 solution of ammonia or amine as the catalyst.

1           12. The composition of claim 1, wherein the volatile  
2 cosmetic fluid is selected, without special limitation, from the  
3 group consisting of a cyclomethicone, a low viscosity  
4 dimethicone fluid with viscosity ranging from 0.65 to 2 cSt, a  
5 C<sub>8</sub>-C<sub>12</sub> hydrocarbon fluid, a low molecular weight alkylmethicone  
6 fluid and a mixture thereof.

1           13. The composition of claim 1, wherein the silicone  
2 fluid is selected from organopolysiloxane fluid with viscosity  
3 ranging from 2 to 350 cSt.

1           14. The composition of claim 13, wherein the  
2 organopolysiloxane fluid is selected from the group consisting of  
3 dimethicone, phenyltrimethicone, alkyl dimethicone, silanol,  
4 amino-containing silicone, fluoroalkyl silicone,  
5 hydroxy-functional silicone, carboxy-functional silicone,

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6 alkoxy-functional silicone, high molecular weight silicone gum  
7 solution, silicone resin solution and silicone-grafted  
8 polyacrylate solution.

1 15. The composition of claim 1, wherein the oil base  
2 comprises: (a) an oil selected from the group consisting of  
3 mineral oils, plant oils, animal oils, fatty acids, fatty acid  
4 esters and fatty alcohols; (b) a cosmetic wax having a melting  
5 point of 40°C or higher; and (c) an oil gelling agent selected  
6 from the group consisting of mineral clays, metallic soaps,  
7 montmorillonite, polyglyceryl fatty acid esters, hydrophobic  
8 sucrose fatty esters, synthetic polymers, starch fatty acid ester  
9 and mixtures thereof.

1 16. The composition of claim 1, wherein the surface  
2 active agent is selected from the group consisting of nonionic,  
3 anionic, cationic, amphoteric and oxyalkylene-modified  
4 organopolysiloxanes.

1 17. The composition of claim 1, wherein the cosmetic  
2 pigment is selected from the group consisting of talc, kaolin,  
3 mica, pearl, magnesium carbonate, magnesium silicate, aluminum  
4 magnesium silicate, silica, calcium carbonate, zinc oxide,  
5 titanium dioxide, red iron oxide, yellow iron oxide, black iron  
6 oxide, ultramarine blue, polyethylene powder, polystyrene powder,  
7 silk powder, polymethacrylate powder, polytetrafluoroethylene

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8 powder, nylon powder, polyurethane powder, crystalline cellulose,  
9 titanated mica, bismuth oxychloride, interference pigments and  
10 mixtures thereof.

1 18. The composition of claim 1, wherein the aqueous  
2 gel comprises water, glycerin, glycol and a thickening agent.

1 19. The composition of claim 18, wherein the glycol is  
2 selected from the group consisting of propylene glycol,  
3 1,3-butylene glycol, hexylene glycol, dipropylene glycol,  
4 polyethylene glycol, polypropylene glycol, hydroxypropyl  
5 sorbitol, hexanetriol and ethoxylated glycerin.

1 20. The composition of claim 18, wherein the  
2 thickening agent is selected from the group consisting of  
3 water-soluble and water dispersible polymers including polymers  
4 that may be crosslinked.

1 21. The composition of claim 1, wherein said  
2 composition further comprises a preservative.

1 22. The composition of claim 21, wherein the  
2 preservative is selected from the group consisting of  
3 phenoxyethanol, methylparaben, ethylparaben, propylparaben,  
4 butylparaben, isobutylparaben, imidazolidinyl urea,  
5 p-hydroxybenzoic acid, benzyl alcohol, disodium EDTA, sodium

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6 dehydroacetate, quaternary ammonium compounds, hydantoin  
7 derivatives and mixtures thereof.

1 23. The composition of claim 1, wherein said  
2 composition further comprises a cosmetically effective active  
3 ingredient.

1 24. The composition of claim 23, wherein the  
2 cosmetically effective active ingredient is selected from the  
3 group consisting of sunscreen agents, tanning agents, vitamins,  
4 glycolic acid, salicylic acid, polyphenol, antimicrobial,  
5 botanical extracts, enzymes and lipids.

1 25. A hybrid silicone composite powder having a  
2 spherical shape with a particle diameter ranging from 2 to 10  
3 microns comprising polydimethylsiloxane (PMS) and  
4 polymethylsilsesquioxane (PMSQ) networks.

1 26. The hybrid silicone composite powder defined in  
2 claim 25 wherein the PMS and PMSQ networks form a composite  
3 structure of interpenetrating polymer networks, which are held  
4 together by physical entanglements on a molecular scale without  
5 chemical bonding between them.

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